CLAIMS

1. Gesture-based input device for a user interface of a computer comprising
   - two pairs of electrodes scalable for any screen size wherein the electrodes are arranged to capture the quasi-electrostatic field surrounding the user in order for the graphic user interface to provide different options or tasks to be selected by a user,
   - a platform for supporting a user,
   - a quasi-electrostatic field generator source connected to the platform and
   - a circuitry connected to the electrodes for determining, relative to each of the electrodes, the position of that part of a user supported by the platform, e.g. a user's hand, being closest to electrodes,
   - wherein the position of the part of the user in each dimension of the electrodes is determined based on the relation of four voltage signals of the circuitry, respectively, each voltage signal indicating the distance between the part of the user and the respective electrode,
   - whereby the position within the electrode closest to the part of the user is determined without any calibration of the sensor system

2. Gesture-based input device according to claim 1, wherein

$$V_H = \frac{|Uo|_L}{|Uo|_R}$$

$$V_V = \frac{|Uo|_B}{|Uo|_T}$$

is utilized to cancel the environment effect which at the same time remove the calibration process before the user to use it. U_O is the output signal from the correspondent electrode.

3. Gesture-based input device according to claim 1 or 2, usable to provide the flexibility for user to define the hand movement range according to one's habit, wherein

$$X = \frac{V_H}{V_{H\max} - V_{H\min}} . L_X$$

$$Y = \frac{V_V}{V_{V\max} - V_{V\min}} . L_Y$$

it also provide the possibility for the user to move forward and backward freely before the screen in a range of around 1 meters.

4. Gesture-based input device according to claim 2, wherein, when the determined position of the part of the user is left substantially unchanged for a predetermined period of time, this is interpreted as selecting an option or task offered to the user through the user interface represented by the QEFS field.

5. Gesture-based input device according to any one of claims 1 to 3, wherein the sensor field comprises a screen and a cursor moved and positioned according to the movement and position of the part of the user.